

REMARKS/ARGUMENTS

The above-noted amendments are respectfully submitted in response to the official action dated July 1, 2008. These amendments are intended to merely clarify the nature of the claims in this application, and in any event support for these limitations is specifically set forth in the specification at various locations, including in ¶ [0055] and in Figs. 1A through C hereof. No new matter is included therein. It is further submitted that good cause clearly exists for entry of these amendments. Most particularly, it is believed that these claims are clearly and fully patentable over the art, but in any event, even if the Examiner does not agree that this is the case, it is also clear that these amendments reduce the number of issues presented by this application for purposes of appeal.

Before reviewing the specific rejections which have been interposed by the Examiner, reference is first made to the response to arguments set forth beginning on page 2 of the present official action. Most particularly, the Examiner refers to the applicants' arguments on page 9 of their prior response to the effect that the Holdregger reference relies on pressurization of the resilient tube 3 to retain the doctor blade 10 and that this somehow is not consistent with the claim language. The Examiner has taken the position that tube 3 in Holdregger satisfies the requirement for a resilient material that clamps and damps the doctor blade in a clamping portion, and the fact that it relies on pressurization does not appear to be dispositive of the fact that Holdregger anticipates the claimed invention because the use of the open-ended transitional phase "comprising" allows anticipatory references to include features not included in the claims. In response, applicants note that, even before the present amendments, claims such as claim 29, for example, required that the elastomeric material

not only be disposed within the elongated slit, but that it be accessible from the opening in the slit whereby the elastomeric material is not only resiliently disposed with respect to the doctor blade to provide a damping action therefor, but is accessible from the opening to assist in removing the doctor blade from the elongated slit. Holdregger clearly does not meet these limitations, and clearly does not anticipate these claims. Holdregger discloses that the clamping tube 3, even if it is pressurized, is not accessible from the longitudinal groove 4 into which the squeegee 10 is pushed. In order to remove the squeegee in Holdregger it is thus necessary to reduce the pressure in tube 3 and then withdraw the squeegee downwardly from the recess 2. It is clear that tube 3 is neither accessible from the recess 2 nor is it accessible to assist in removing the doctor blade from the elongated slit. However, in order to further clarify this language, applicants have now made it clear that the elastomeric material is disposed within the elongated slit and accessible for removal from the opening in the slit with the doctor blade disposed therein, and that the elastomeric material is "removable" from the opening to assist in subsequent removal of removing the doctor blade from the elongated slit. Furthermore, in method claim 51, it is now required that after the portion of the doctor blade is inserted into the slit through the opening, thereafter the resilient clamping means is inserted into the slit through the opening for resiliently supporting at least one side of the doctor blade within the slit. Clearly none of this can be accomplished in accordance with the teachings of Holdregger.

The Examiner had taken the position that the tube 3 in Holdregger is accessible from the opening in slit 2. While applicants have consistently argued that it is certainly not accessible in order to assist in removal of the doctor blade, it is certainly clear that it is not removable from the opening in

order to assist in removing the doctor blade from the elongated slit. Indeed, the Examiner had previously agreed with applicants that it is impossible to remove the tube of Holdregger from slit 2 without first removing the doctor blade. The Examiner, however, took the position that this was not of any moment with regard to either anticipation or obviousness. It is clear, however, particularly with the clarification of the claims set forth above, that this is now the case, that the claims require what applicants have been arguing from the outset, and that these claims clearly patentably distinguish over this art. Finally, the Examiner had also taken the position that the arguments previously submitted by applicants with respect to Holdregger's various "nooks and crannies" was not dispositive because of the open-ended transitional phrase "comprising." It is applicants' position, however, that it is only because of the presently claimed invention, and most particularly in view of the requirement for an elastomeric material which is removable from the opening to assist in removing the doctor blade from the elongated slit, that it is now possible to provide a doctor blade mounting system in accordance with the present invention, which, in turn, can be used in accordance with the rotatable cylinders in printing equipment and which can be covered with ink from all directions and nevertheless be readily cleaned each time it is necessary to change the doctor blade during normal printing operations. On the other hand, this is certainly not true with the configuration shown in Holdregger.

Applicants will now discuss in detail each of the specific rejections interposed by the Examiner, but it is believed that the above-noted amendments and arguments fully clarify the patentable nature of this invention, and reconsideration and allowance of these claims is therefore respectfully solicited.

Claims 40-48, 51 and 54 have been rejected as being anticipated by Holdregger under 35 U.S.C. § 102(b). Regarding claim 40, the Examiner contends that Holdregger teaches a doctor blade mounting system comprising a doctor blade clamping portion comprising a solid material including a slit with an opening for receiving a doctor blade and clamping means 3, 12 in Fig. 1 for clamping the doctor blade within the slit, the clamping means comprising an elastomeric material disposed within the elongated slit and accessible from the opening in the slit whereby the elastomeric material is resiliently ("clamping tube which is made of a pressure-type elastic material," col.3 ll.36-37; "spring strip 12," col.3 ll.61-62; both the elastic and spring are resilient; tube 3 can be accessed from open end of slit 2, Fig. 1) arranged to provide a damping motion to the doctor blade and accessible from the opening to assist in removing the doctor blade from the elongated blade (tube 3 is accessible from open end of slit 2, and deflation of tube 3 "assists" in removal of blade 1, Fig. 4).

With respect to claim 41, Holdregger is said to also teach the clamping means tightly received within the slit, and respecting claim 42, where the clamping means fixes the doctor blade by means of friction (blade 10 appears to be in frictional contact with 12, which is frictionally pressed against blade 10 by strip 3).

Holdregger is also said to teach that the clamping means supports at least one side of the doctor blade (claim 43), and the clamping means is resiliently disposed within the slit (claim 44), while the clamping means is removably disposed within the slit (both elements 3 and 12 appear to be removable).

In addition, Holdregger is said to teach the clamping means comprising an elastomeric member (claim 46), and at least a portion is in the shape of a wedge strip intended to fit and lock within a cross-sectional profile of the slit (claim 47),

and at least a portion of the clamping means supports an edge of the doctor blade within the slit (claim 48).

Finally, Holdregger is said to teach a method for removably clamping a doctor blade 10 in a clamping member comprising an elongated clamping member of solid material 1 including a slit 2 for introducing the doctor blade by inserting a portion of the doctor blade into the slit (a portion of blade 10 is in slit 2 in Fig. 4), and inserting resilient clamping means into the slit for resiliently supporting at least one side of the doctor blade within the slit (claim 51), as well as attaching the clamping means to the substantially U-shaped support 18 (claim 54). This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

The Holdregger patent itself is directed to a mounting device for a squeegee or inking blade for use in a printing press. In the embodiment shown in Figs. 1-4, the squeegee or inking blade is initially retained within recess 2 by means of a spring 12, which temporarily retains the squeegee blade therein. The real mechanism for retaining the squeegee, however, includes the combination of longitudinal groove 4 which communicates with recess 2 and in which is retained a clamping tube 3 as shown therein. This clamping tube includes bellows-like side walls and a "relatively rigid and thick front wall 7 facing the recess 2." (Col.3 ll.39-40.) As can thus be seen in Fig. 1 of Holdregger, before inflation of the clamping tube 3 it does not serve any function in retaining the squeegee or inking blade within the recess 2. It is only upon activation of the pressure retaining valve 9 and inflation of the clamping tube 3 that the thick front wall 7 is pressed against the squeegee or inking blade to retain it within the recess 2. In addition, the combination of locating stop 14 at the mouth of groove 2 with box section 19 of the inking blade with bottom edges 20 is

adapted to engage stop 14. It is thus the combination of these three elements, the spring, the locating stop, and the clamping tube, which are adapted to retain the squeegee or inking blade within the groove 2. Furthermore, it is only on pressurization of the clamping tube that this can be accomplished in Holdregger.

Turning to the present claims, the amended claims now specifically require that the clamping means comprise an elastomeric material which is disposed within the elongated slit and which is accessible for removal from the opening in the slit with the doctor blade disposed therein. As discussed above, it is clear that Holdregger does not disclose a removable elastomeric material, which can readily be removed through the slit so that thereafter the doctor blade can be taken out of the slit without any difficulty. This is true both with respect to the tube 3 and the spring 12, which is clearly not accessible without first removing the doctor blade or its equivalent. In accordance with the present invention, however, it is a simple matter to press clamping means, such as the wedge strip of claim 36, which is preferably lubricated, within the slit to provide an evenly distributed force holding the doctor blade against the opposite wall of the slit itself or against another such wedge strip. In this manner, pure friction between the doctor blade and the slit and the doctor blade and the wedge strip itself retains the doctor blade therewithin, once again as contrasted with the pressure means in Holdregger. On the other hand, in order to readily remove the doctor blade, one can easily, and preferably by hand, simply remove the portion of the wedge strip extending outside of the opening in the slit, such as by stretching the wedge strip to reduce its cross-section, to easily remove same, thus leading to ready removal of the doctor blade itself thereafter. In connection with the Holdregger device, it is not only impossible to remove the clamping tube

from the device without first removing the doctor blade, but in fact it must be depressurized in order to be able to even accomplish that result. No such complex operation is required by the present invention, particularly since the clamping means itself is accessible through the opening in the slit.

It is therefore once again respectfully submitted that these claims are clearly patentable over the cited Holdregger reference, and reconsideration and allowance of these claims is therefore respectfully solicited.

Claims 29-39, 50 and 55 have been rejected as being obvious over Bööse et al. in view of Holdregger under 35 U.S.C. § 103(a). The Examiner contends that Bööse teaches a doctor blade mounting system for applying liquid to a rotatable cylinder comprising an elongated frame 13 mounted adjacent to the rectangular cylinder 2 and including a support and a clamping portion 19 mounted with respect to the support, the clamping portion including an elongated slit (blades 9, 10 engaged in a quote "slit" in Fig. 1), a doctor blade disposed within the elongated slit parallel to the rotatable cylinder for wiping engagement therewith, and clamping means for fixing the doctor blade within the elongated slit, the clamping means being disposed with respect to the doctor blade to provide a damping action for the doctor blade (blade 9, 10 fixed in the slit and appear to be mounted in such a way that there action is damped in Fig. 1). The Examiner then admits that Bööse does not teach the slit including an opening, the clamping means comprising an elastomeric material disposed within the elongated slit and accessible from the opening in the slit whereby the elastomeric material is resiliently disposed with respect to the doctor blade to provide a damping action for the doctor blade and is accessible from the opening to assist in removing the doctor blade from the elongated slit. The Examiner contends, however, that Holdregger teaches a doctor blade mounting system including

clamping means disposed with respect to the doctor blade to provide a damping action therefor. The Examiner contends that this arrangement simplifies the mounting process for the inking blade, creating a uniform linear clamping force along the length of the blade and obviating distortions in the mounting of the inking blade due to local differences in clamping forces. The Examiner thus concludes that it would be obvious to modify Bööse et al. whereby the clamping means is resiliently disposed with respect to the doctor blade taught by Holdregger. This combination is also said to teach that the clamping means is tightly received within the slit (claim 30), that the clamping means fixes the doctor blade by means of friction (claim 31), and the clamping means supports at least one side of the doctor blade disposed within the slit (claim 32). This combination of references is also said to teach the clamping means being resiliently disposed within the slit (claim 32), the clamping means is removably disposed within the slit (claim 34), the clamping means comprises at least one elastomeric member (claim 35), the clamping means is in the shape of a wedge strip (claim 36), the clamping means supports an edge of the doctor blade disposed within the slit (claim 37), and the elastomeric member has a hardness (claim 38). The Examiner then admits that the combination of references does not teach that the elastomeric member has a hardness of about 70 degrees Shore, but contends that one of ordinary skill would know that elastomeric materials have a hardness measured on the Shore A scale, and that hardness will affect its behavior. The Examiner thus concludes that it would be obvious to modify Bööse et al. to select a material with a Shore hardness of 70. Finally, the combination of references is said to teach where the support and the clamping portion comprise separate parts (claim 39), that Bööse et al. teaches removably attaching a doctor blade clamping portion to a support with the clamping portion 19 including a

first and second slit (first slit inside 19, second slit inside 20), the first slit for accommodating a doctor blade and introducing end portions of the frame into the second slit for resuming support, and while Bööse et al. is admittedly not teaching inserting resilient clamping means into the second slit, Holdregger is said to teach an arrangement simplifying the mounting process for the inking blade with the Examiner concluding that it would be obvious to modify Bööse et al. to insert resilient clamping means into the second slit based on the Holdregger disclosure. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

Applicants reiterate all of their above-noted contentions with respect to the clear deficiencies of both the Holdregger and Bööse et al. references. Indeed, it is submitted that these deficiencies, in view of the amendments to claims 29, 50 and 55, clearly support the patentable nature of these claims over this combination of references. Once again, irrespective of the combination of references made by the Examiner, even if this combination were properly made, in view of the deficiencies of Holdregger and its total failure to disclose clamping means comprising an elastomeric material disposed within the elongated slit and accessible from the opening in the slit with the doctor blade disposed therein, it is clear not only that these references fail to teach this structure, but that they fail to teach any structure which is capable of both resiliently providing a damping motion for the doctor blade and at the same time rendering the clamping material accessible from the opening in the slit to assist in removing the doctor blade from the slit itself.

Applicants further submit that the combination of references set forth by the Examiner should not be made in the first instance. As stated above, the structure shown in

Holdregger is not suitable for the blade mounting system shown in the Bööse et al. reference due to the cleaning problem discussed above. Thus, if the Holdregger apparatus were employed in the printing apparatus shown in Bööse et al., the structure of that product, and the use of a clamping tube 3 received in a separate longitudinal groove 4 as a side chamber in connection with the recess 2 itself would create a serious problem in connection with removal and cleaning of the apparatus. This, of course, is greatly simplified by the specific claimed structure of the apparatus of the present invention. Once again, the use of a pressurized clamping tube in Holdregger, along with the use of two grooves, one for the clamping tube in which it is loaded and unloaded, and one for the squeegee itself, as well as the spring mechanism thereof, greatly complicates and distinguishes the Holdregger product from that of the present invention.

It is therefore respectfully submitted that, based on all of the arguments set forth above, these claims are clearly patentable over the combination of references, and reconsideration of this rejection and allowance of these claims is respectfully requested.

Claims 49, 52 and 53 have been rejected as being obvious over Holdregger under 35 U.S.C. § 103(a). The Examiner admits that Holdregger is silent as to the hardness of elastic strip 3 and does not teach the hardness of about 70 degrees Shore. The Examiner contends, however, that one of ordinary skill would know that elastomeric materials have a hardness measured in Shore A scale, and that hardness will affect the behavior thereof. It is thus said to be a matter of routine experimentation to optimize such a value. The Examiner also admits that Holdregger is silent as to the exact method of installing strip 3 and does not teach lubricating the clamping means prior to inserting into the slit. The Examiner concludes,

however, that one of ordinary skill familiar with friction would know to modify Holdregger to lubricate the clamping means prior to inserting into the slit. Holdregger is also said to teach clamping means comprising an elastomeric member and including manually inserting clamping means into the slit. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

Applicants reiterate all of their above-noted contentions with respect to the clear deficiencies of the Holdregger reference. As for the Bööse reference, this reference is directed to a chambered doctor blade for use in printing processes, particularly in which the blade serves to ink a screen roller. In this case, the doctor blades themselves, as shown in Fig. 1, are mounted on the frame 8 with two interconnected metal sections, 13 and 14, made of bent thin sheet metal. The mounting of the doctor blades, 9 and 10, is merely attached by bolt joints, 24 and 25, to the suspension element 3 mounted in machine frame, 4 and 5. The blade itself merely appears to be held between two metallic holders.

In view of these deficiencies and particularly the deficiencies in the Holdregger reference as discussed above with respect to the amended claims set forth herein, including Holdregger's utter failure to disclose clamping means comprising an elastomeric material disposed within the elongated slit and accessible for removal from the opening in the slit, and furthermore being removable from the slit in order to assist in subsequent removal of the doctor blade, it is again clear not only that these references fail to teach this structure, but that they fail to teach any structure which is capable of both resiliently providing a damping motion for the doctor blade and at the same time making the clamping material removable from the opening in the slit so that the doctor blade can then be readily removed from the slit.

It is therefore respectfully submitted that, based on all of the arguments set forth above, these claims are clearly patentable over the combination of references, and reconsideration of this rejection is also respectfully requested.

Applicants respectfully repeat all of their above-noted contentions with respect to the clear deficiencies of the Holdregger reference. Once again, in referring to the amendments to claims 40 and 51, it is now believed to be clear that these claims also patentably distinguish over the Holdregger reference, for the same reasons discussed above, without the need to also refer to the specific added limitations in these depending claims.

It is therefore respectfully submitted that all of the claims now presented in this application possess the requisite novelty, utility and unobviousness to warrant their immediate allowance, and such action is therefore respectfully solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

Finally, if there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

By 

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